

Year 4 Science

Achievement

By the end of Year 4, students apply the observable properties of materials to explain how objects and materials can be used. They use contact and non-contact forces to describe interactions between objects and recognise that some interactions cannot be seen with the naked eye. Students discuss how natural and human processes cause changes to the Earth's surface. They describe relationships that assist the survival of living things and sequence key stages in the life cycle of a plant or animal. They identify when science is used to ask questions and make predictions and describe situations where science understanding can influence their own and others' actions.

Students follow instructions to identify investigable questions about familiar contexts and predict likely outcomes from investigations. They discuss ways to conduct investigations and safely use equipment to make and record observations. They use provided tables and simple column graphs to organise their data and identify patterns in data. Students suggest explanations for observations and compare their findings with their predictions. They suggest reasons why their methods were fair or not. They complete simple reports to communicate their methods and findings.

Assessment Criteria

An overall level of achievement in this subject is determined by the teacher's on-balance judgment of the evidence presented in students' summative assessment across the following:

- **Science Understanding:** Biological Sciences, Chemical Sciences, Earth and Space Sciences, Physical Sciences.
- **Science as a Human Endeavour:** Nature and development of science, use and influence of science.
- **Science Inquiry Skills:** Questioning and predicting, Planning and conducting, Processing and analysing data and information, Evaluating, Communicating

Delivery (mode, time requirements, lessons)

Students have access to a 45 minute scheduled lesson each week. Lessons are delivered via Blackboard Collaborate and teleconferencing. Students are also expected to undertake independent study to complete tasks and assessment in accordance with the Work Rate Calendar. Course materials can be accessed in Blackboard.

Student Requirements

Computer, access to internet, email, printer, scanner, telephone or headset with microphone, digital camera, exercise book, stationery.

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		Units and Learning Experiences, Summative Assessment, Criteria Assessed, Approximate timing/due date of summative assessment
Semester 1	Term 1	<p>Biology unit: Ready, set, grow! Investigating life cycles. Examining relationships between living things and their dependence on the environment.</p>
		<p>Summative assessment, criteria assessed, approximate timing/due date:</p> <ul style="list-style-type: none"> Research an endangered Australian animal or plant; Life cycles: Written task (Biological sciences, Use and influence of science, Communicating) Week 10
	Term 2	<p>Unit 3 Chemistry: Material Uses Investigating particular properties of common materials and relate the properties to their uses.</p>
		<p>Summative assessment, criteria assessed, approximate timing/due date:</p> <ul style="list-style-type: none"> Properties of materials: Plan, conduct, evaluate and report on an investigation into the properties of materials and apply this knowledge to real life situations. (Chemical sciences, Questioning and predicting, Planning and conducting, Processing and analysing data and information, Evaluating, Communicating) Week 10
Semester 2	Term 3	<p>Physics unit: Fast forces Students will use games to investigate and demonstrate how forces affect objects through contact and non-contact forces. They will use their knowledge of forces to make predictions about games. Students will also identify situations where science is used to ask questions or to make predictions. They will identify how science knowledge of forces helps people understand the effects of their actions.</p>
		<p>Summative assessment, criteria assessed, approximate timing/due date:</p> <ul style="list-style-type: none"> Written task: Observations and a collection of work gathered from the unit. Students will investigate how forces can be exerted on an object by either contact or non-contact forces and communicate findings based on data collected. (Physical sciences, Nature and development of science, Questioning and predicting, Processing and analysing data and information, Communicating) Week 9
	Term 4	<p>Earth and Space unit: Here today gone tomorrow Natural processes and human activity which cause weathering and erosion of the earth's surface.</p>
		<p>Summative assessment, criteria assessed, approximate timing/due date:</p> <ul style="list-style-type: none"> Assignment/Project Being a soil scientist; Soil erosion: Written task (Earth and space sciences, Use and influence of science, Questioning and predicting, planning and conducting, Processing and analysing data and information, Communicating) Week 7

Disclaimer All of the above information is accurate at the time of development.